

## CLAIMS

What is claimed is:

1. Anaesthetic controller for influencing the rate of active substance supply to a patient's body (14) to attain and maintain a desired anaesthetic state, the controller comprising a model computing portion (10) calculating a current value of the present active substance concentration in the patient's body ( $CN_{actual}$ ) on the basis of a patient model (11) and taking into consideration former values (R) of the active substance supply, and comprising a control portion (16) changing the rate (R) of the active substance supply as a function of the current value ( $CN_{actual}$ ) of the present active substance concentration such that the present active substance concentration ( $CN_{actual}$ ) is controlled to attain a target value ( $CN_{desired}$ ).
2. Anaesthetic controller according to claim 1, wherein the target value ( $CN_{desired}$ ) of the active substance concentration is adjustable on an input means (19).
3. Anaesthetic controller according to claim 1, wherein the target value ( $CN_{desired}$ ) of the active substance concentration is determined in a body function computing portion (20) in dependence on measured body functions.
4. Anaesthetic controller according to claim 3, wherein a signal adequate to the effect on the body function (e. g. a BIS signal) or another indicator for indicating the anaesthetic level is utilized and a controller is provided which calculates a target value ( $CNT_{BIS}$ ) from the physiological signal.
5. Anaesthetic controller according to claim 4, wherein the BIS controller (23) receives a presettable bispectral index target value ( $T_{BIS}$ ) and cal-

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culates an active substance concentration target value ( $CNT_{BIS}$ ) from the control deviation.

6. Anaesthetic controller according to claim 1, wherein a selection means (18) is provided which allows selection between two separately generated active substance concentration target values ( $CNT_{MAN}$ ,  $CNT_{BIS}$ ).
7. Anaesthetic controller according to claim 1, wherein the time behaviour of active substance supply (R), active substance concentration (CN) and/or information on the depth of anaesthesia can be indicated on a display device (15,24).
8. Anaesthetic controller according to claim 1, wherein an upper and a lower limit value of active substance concentration are specified.

*add A1*

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